

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A thermal exchange device comprising:

a planar thermal electric cooling unit having an upper planar side and a lower planar side, comprising a first planar plate positioned on the upper planar side and a second planar plate positioned on the lower planar side of the unit;

a housing comprising a first housing wall and a second housing wall, wherein the first housing wall is positioned on the ~~upper side~~ first planar plate of the thermal electric cooling unit and the second housing wall is positioned on the ~~lower side~~ second planar plate of the thermal electric cooling unit;

a first heat pipe positioned within the first planar plate, wherein a predetermined portion of the first heat pipe extends laterally beyond the first planar plate in a first direction to an exterior of the housing;

a second heat pipe positioned within the second planar plate, wherein a predetermined portion of the second heat pipe extends laterally beyond the second planar plate in a direction opposite to the first direction to an interior of the housing;

a plurality of fins formed on the predetermined portion of each of the heat pipes;

an external fan provided over the fins on the first heat pipe that draws air outside the housing into the housing; and

an internal fan provided under the fins on the second heat pipe that circulates air within the housing.

2. (Previously Presented) The thermal exchange device of Claim 1, wherein of the first heat pipe is positioned in a center of the first planar plate, and the second heat pipe is positioned in a center of the second planar plate.

3. (Currently Amended) A thermal exchange device comprising:
a thermal electric cooling unit comprising a first planar plate and a second planar plate,
wherein the first planar plate is in a first plane, and the second planar plate is in a second plane which is below the first plane;
a first housing wall positioned above the first ~~planar plate~~ plane;
a second housing wall positioned below the second ~~planar plate~~ plane;
a first heat pipe positioned within the first planar plate and extending laterally in a first direction ~~to an exterior of the housing~~;
a second heat pipe positioned within the second plate and extending laterally in a second direction opposite the first direction ~~to an interior of the housing~~;
a first plurality of fins formed on the first heat pipe, the first plurality of fins extending radially from the first heat pipe; and
a second plurality of fins formed on the second heat pipe, the second plurality of fins extending radially from the second heat pipe.

4. (Previously Presented) The thermal exchange device of Claim 3, further comprising an external fan formed on an upper side of the first plurality of fins.

5. (Previously Presented) The thermal exchange device of Claim 4, wherein the external fan processes an outside air.

6. (Previously Presented) The thermal exchange device of Claim 5, further comprising an internal fan formed on a lower side of the second plurality of fins.

7. (Previously Presented) The thermal exchange device of Claim 6, wherein the internal fan processes the air within the first housing wall and the second housing wall.

8. (Previously Presented) The thermal exchange device of Claim 3, wherein the first plurality of fins is a high-density fin stack.

9. (Previously Presented) The thermal exchange device of Claim 3, wherein the second plurality of fins is a high-density fin stack.